PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

WRITTEN OPINION
(PCT Rule 66)

Date of mailing *(day/month/year)*	12.08.2004
Applicant's or agent's file reference E-2211/04	**REPLY DUE** **within 3 month(s)** from the above date of mailing

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/EP 03/12087	30.10.2003	04.11.2002

International Patent Classification (IPC) or both national classification and IPC
A61C1/00

Applicant
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1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

I	☒	Basis of the opinion
II	☐	Priority
III	☐	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	☐	Lack of unity of invention
V	☒	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	☐	Certain documents cited
VII	☐	Certain defects in the international application
VIII	☐	Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 04.03.2005

Name and mailing address of the international preliminary examining authority:

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I. Basis of the opinion

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed")*:

Description, Pages

1-9 as originally filed

Claims, Numbers

1-13 as originally filed

Drawings, Sheets

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

   These elements were available or furnished to this Authority in the following language: , which is:

   ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
   ☐ the language of publication of the international application (under Rule 48.3(b)).
   ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

   ☐ contained in the international application in written form.
   ☐ filed together with the international application in computer readable form.
   ☐ furnished subsequently to this Authority in written form.
   ☐ furnished subsequently to this Authority in computer readable form.
   ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
   ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

   ☐ the description, pages:
   ☐ the claims, Nos.:
   ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	
Inventive step (IS)	Claims	1-13
Industrial applicability (IA)	Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: WO 00/62694 A (ALTSHULER GREGORY) 26 October 2000 (2000-10-26)
D2: WO 02/42719 A (DOMANKEVITZ YACOV ; ANDERSON R ROX (US); GEN HOSPITAL (US)) 30 May 2002 (2002-05-30)
D3: US-A-6 156 030 (NEEV JOSEPH) 5 December 2000 (2000-12-05)
D4: WO 99/49937 A (GEN HOSPITAL CORP ; PALOMAR MEDICAL TECHNOLOGIES I (US)) 7 October 1999 (1999-10-07)
D5: US-A-5 456 603 (KOWALYK KENNETH ET AL) 10 October 1995 (1995-10-10)
D6: US-A-4 951 663 (L ESPERANCE JR FRANCIS A) 28 August 1990 (1990-08-28)
D7: US-A-5 713 891 (POPPAS DIX P) 3 February 1998 (1998-02-03)

2. Inventive Step, Art. 33(3) PCT:

2.1 Independent claim 1 of the present application differs from the prior art D1 in that document D1 does not use a chromophorous agent.

The problem solved by this is to increase laser absorption on selectively chosen tissue.

Chromophorous agents are very well known in the medical field just for this same purpose; faced with this problem, the man skilled in the art would consider it obvious to adopt such an agent. As an example, document D5 discloses the use of dyes for specific absorption of laser in the treatment of decaying teeth, while documents D6 & D7 are just further examples of documents which explain and list chromophores and selective laser absorption.

Independent claim 1 is thus not inventive in the sense of Art. 33(3) PCT.

Lack of inventive step could also have been ascertained by starting with one of the documents D2-D4.

2.2 Independent claim 8 of the present application differs from the prior art D1 in that document D1 does not use a chromophorous agent and hence an apparatus for

applying such an agent is not disclosed.

It has been ascertained that the use of a chromophorous agent for selective absorption of laser is very well known in the field and its use is standard practice. The use of such an agent implicitly and obviously implies that such an agent must, by whatever means, be applied in the first place. It is then precisely that which is used to apply the agent which constitutes the system for applying the agent.

Independent claim 8 is thus not inventive in the sense of Art. 33(3) PCT.

Again, lack of inventiveness could have been ascertained starting from one of the documents D2-D4 in combination to any of D5-D7, as in point 2.1 above.

2.3 Claims 2-6 are further not inventive over the disclosure of documents D1-D3 because these prior arts all disclose the claimed fluence and pulse duration, as well as the use optical fibres and of lenses/mirrors for focussing.

2.4 Claim 7 is not inventive because the use of an aerosol spray to apply a substance is blatantly obvious. Aerosol sprays are omnipresent is many different fields and industries all for the purpose of spraying substances onto an area. The use of such a spray as in the application is an obvious choice and a standard application.

2.5 Claims 9-12 are not inventive in that documents D1-D4 disclose all the claimed fluence thresholds, pulse durations and the use of optical fibres for conveying the laser.

2.6 Claim 13 is also deemed not inventive because, although the cited prior art does not specifically give values for the diameter of the fibres used, the claimed range is so broad as to fall within the normal values used for the diameter of optical fibres for medical systems and hence the prior arts implicitly disclose these values.